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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,987	10/13/2005	Shogo Hattori	59494.00022	5846

32294 7590 03/12/2007

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EXAMINER	
LEUNG, KA CHUN A	
ART UNIT	PAPER NUMBER
3747	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,987	HATTORI, SHOGO	
	Examiner	Art Unit	
	Ka Chun Leung	3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4* is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10022006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Applicant's amendment received on 19 JAN 2007.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by IGARASHI et al (JP 9-4487) as indicated in the previous Office Action dated 19 OCT 2006.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over IGARASHI et al (JP 9-448) in view of KANKE et al (US 2003/0070494) as indicated in the previous Office Action dated 19 OCT 2006.

Allowable Subject Matter

3. Claim 4 is allowed.

4. The following is an examiner's statement of reasons for allowance:

As indicated by the Applicant in arguments filed arguments filed 19 JAN 2007, particularly on Page 12, Paragraph 1, neither TOPFER et al nor KANKE et al discloses

nor suggests providing an air flow rate sensor in an extend pipe portion extended towards the branch pipes.

TOPFER et al (US patent 5,623,900) discloses an air guiding pipe (7) which extends into the plurality of branches (2-5).

KANKE et al (US 25003/0070494) discloses an air flow meter with a throttle valve (12) a first sensor part (161) installed upstream of the throttle valve (12) and a second sensor part (141) installed downstream of the throttle valve (12). Figure 1 illustrates the above components as a throttle-integrated flow meter (20), or alternatively Figure 11 illustrates the second sensor part (141A, 141B) as being installed downstream of the branched connection of two parts of four cylinders. Thus KANKE et al discloses providing a second sensor part downstream either integral with the throttle valve (12) or in "the branch connection of two parts of four cylinders and the upstream side of the branch connection of each of the cylinders" as described in paragraph [0128].

While KANKE et al provide motivation to place a second sensor downstream either integral with the throttle valve, or alternatively in "the branch connection of two parts of four cylinders and the upstream side of the branch connection of each of the cylinders," it does not disclose or suggest placing a second sensor specifically in a guide pipe which extends into the branch pipes. Thus the combination of features is neither anticipated nor obvious over prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed 19 JAN 2007 have been fully considered but they are not persuasive.

6. Regarding claims 1 and 2, in response to applicant's argument that the configuration of the air intake apparatus in the present invention makes it

> "possible to directly measure only the quantity of air that is taken into the internal combustion engine and to exclude the air that fills the interior of the air intake manifold (Specification, page 4, lines 18-22),"

a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

7. Presently, the recitation of intended use is only found in the specification and the claims do not provide structural limitations over the prior art. Specifically, IGARASHI et al (JP 9-448) does in fact meet the limitation of having "an air flow rate sensor that detects a quantity of air that is taken into the internal combustion engine is provided in at least a portion of the plurality of branch pipes." IGARASHI et al distinctly discloses air flowrate meters (20) provided in each of the plurality of branch pipes (15) as

illustrated in Figure 7. Each of the air flowrate meters (20) detects the flow rate of air into their respective cylinder/combustion chamber (22) and thus detects "a quantity of air" received by the cylinder/combustion chamber (22) of the engine.

8. Regarding claim 3, in response to applicant's argument that the configuration of the air intake apparatus in the present invention makes it

> "possible to directly measure only the quantity of air that is taken into the internal combustion engine and to exclude the air that fills the interior of the air intake manifold"

and further that,

> "in cylinders other than the air flow rate sensor equipped cylinders, it is possible to more accurately measure the air intake quantity by performing processing such as subtracting the air intake quantity in the air flow rate sensor equipped cylinders for the total air intake quantity measured bye the air flow rate sensor provided in the collecting pipe, and by also using a rotation angle sensor that detects rotation angles in the crankshaft or camshaft (Specification, page 4, lines15-25),"

a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

9. Presently, the recitation of intended use is only found in the specification and the claims do not provide structural limitations over the prior art. As described above IGARASHI et al (JP 9-448) discloses air flowrate meters (20) in the plurality of branch pipes (15).

10. KANKE et al (US 2003/0070494) discloses a throttling valve (17) with an air flow meter having a first sensor part (161) arranged upstream of the throttle valve (17) and a second sensor part (141) arranged downstream of the throttle valve (17).

11. When the air flow meter features of KANKE et al is combined with IGARASHI et al, an air flow sensor part would be provided upstream of the throttle valve of IGARASHI et al. Since the throttle body of IGARASHI et al is formed in the main air duct/collecting pipe (4), as described in [0016] of IGARASHI et al, the air flow rate sensor part provided upstream would therefore also be provided in the main air duct/collecting pipe (4).

12. Please note that although the claims are interpreted in light of the specification limitations from the specifications are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

13. Applicant's arguments, see Paragraph 1 of Page 12, filed 19 JAN 2007, with respect to claim 4 have been fully considered and are persuasive. The rejection of claim 4 has been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ka Chun Leung whose telephone number is (571) 272-9963. The examiner can normally be reached on 7:30AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCL
07 MAR 2007
Ka Chun Leung
Examiner
Art Unit 3747

STEPHEN K. CRONIN
SUPERVISORY PATENT EXAMINER